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ABSTRACT

The purpose of this paper is twofold: first, to provide a rationale for the design and use of a nonverbal coder-training system, and second, to present comprehensive coder-training packages theoretically based in the areas of (1) learning theory, (2) nonverbal research, and (3) instructional technology. Specifically, this training program is intended to build consistent experimental confidence and reliability for coders applying nonverbal category systems to real-life presentations of classroom teachers. This training program is currently undergoing validation procedures. (Author)

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RATIONALE AND TRAINING GUIDES FOR A NONVERBAL CLASSIFICATION SYSTEM

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Summary

The purpose of this paper is twofold: first, to provide a rationale for the design and use of a nonverbal coder-training system, and second, to present comprehensive coder-training packages theoretically based in the areas of 1) learning theory, 2) nonverbal research, and 3) instructional technology. Specifically, this training program is intended to build consistent experimental confidence and reliability for coders applying nonverbal category systems to real-life presentations of classroom teachers. This training package is currently undergoing validation procedures.

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The purpose of this paper is twofold: first, to provide a rationale for the design and use of a nonverbal coder-training system, and second, to provide an explanation and description of the training package.

The rationale underlying the design and application for this training procedure will be based on a review of the research literature in three primary areas: 1) learning theory, 2) nonverbal research, and 3) instructional technology. Further, this rationale will identify the relationship of 1) the impact of nonverbal communication within the classroom context, 2) the use of effective teaching models for teacher-training and 3) the availability and use of instructional technology in designing this training system.

Rationale

Communication theorists have long believed that a relationship exists between the spoken word of a communicator and the nonverbal cues accompanying that verbal behavior (Knapp, 1972; Galloway, 1972; Peggy Amidon, 1971). These extralinguistic codes have been identified as serving such functions as reinforcing or denying the meaning of spoken words. These behaviors may act as qualifiers to the verbal by performing additional functions as accenting, regulating, or substituting for the spoken message (Knapp, 1972; Ruesch and Kees, 1956).

Beyond this relational effect between verbal and nonverbal communication, nonverbal messages unaccompanied by verbal counterparts are believed capable of conveying important meanings (Love and Roderick, 1972; Amidon, 1971).

Quickly noticed, however, is the paucity of information regarding the role of nonverbal communication in the classroom setting. This lack of research is reaffirmed by Knapp: "The classroom is a veritable gold mine of nonverbal behavior which has been relatively untapped by scientific probes."[1] Moreover, P. Amidon argues that the basic function of communication has been "...traditionally to arrive at shared meaning through the use of verbal and nonverbal codes."[2]

Accepting the position taken by these communication theorists, it becomes important to identify the role of nonverbal communication in the learning context, and to establish the need to concentrate on the pedagogical implications of teacher classroom behavior.

Sociologists and psychologists including Rogers (1970), Riesman (1950, 1971), Fromm (1944), and Maher (1970), tend to arrive at consensus regarding the role of communication in education. The role of the individual in society is one of conformity and implies that one of the most significant links between the individual and society is the "...way in which society insures some degree of conformity from the individuals who make it up."[3] From this viewpoint, education, the school, is a primary social institution that insures societal order through communication. In this perspective, Victoria's statement that schooling is "...a communication process--not only in the traditional sense of transmitting knowledge or inculcating values, but more particularly in relation to interpersonal behavior,"[4] not only reinforces the stated role of communication but emphasizes the interpersonal nature of it.

The impact of communication on the teacher-student relationship in quantitative terms is impressive. It is possible for the teacher to

encounter as many as 1,000 such interactions per day (Rogers, 1970). Highet (1970), supports the concept that communication is the most vital component of education. "Communication, the transmission of thought from one mind to others, is one of the basic activities of the human race... teaching is only one of the many occupations that depend upon it, and depend upon it absolutely."[5]

More specifically, a survey of literature reveals an increased research interest in the nonverbal interaction between teacher and student (Theory Into Practice, 1971; Grant and Hennings, 1971; Barr, 1929; Strother, 1971; Lail, 1968; Galloway, 1972). These exploratory probes consist of attempts to identify, tabulate and analyze nonverbal moves of teachers in the educational setting (Love and Roderick, 1971; Strother, 1971; Lail, 1968; Galloway, 1972).

Related research efforts supporting this interest in nonverbal teaching behaviors include the works of Breed (1971), and Strother (1971), that identified and manipulated nonverbal cues, such as eye contact, and affects on source attractiveness and receiver comprehension.

Perhaps the primary implications of this intense interest in nonverbal actions within the classroom are the attempts to identify and categorize effective nonverbal behaviors by teachers and finally to develop more meaningful programs/models of teacher improvement. The inherent, yet still somewhat tentative assumption underlying these implications, is that certain nonverbal behaviors are supportive of, or indicative of effective and ineffective learning conditions in the classroom context.

Most representative of these investigations involving the identification, tabulation, and analysis of communicator influence in terms of

nonverbal motions are Love and Roderick (1971), Galloway (1962), Grant and Hennings (1971), and Civikly (1973).

Galloway's poineering study in 1962 established systematic techniques of investigating nonverbal motions during the interaction between teacher and students. Two valuable results of Galloway's investigation were the development and validation of seven categories of teachers' nonverbal, classroom behavior and secondly, the conclusion that elementary school teachers "...differed in their ability and inclination to be encouraging or inhibiting in their communicative contacts with pupils."[6]

Grant and Hennings 1971 study was a useful extension of Galloway's work. The authors' goal was to answer the question, how can we improve teaching? In seeking the answer to this question, Grant and Hennings tried to determine nonverbal characteristics of teacher-behavior and how teachers relate to their verbal activity, pedagogical functioning, and individual teacher style.[7] Though more comprehensive than Galloway's work, the nature of both study designs limited the interpretation of teachers' moves. Both approaches were descriptive examinations of teachers' moves and attempted only to compare each instructor along dimensions such as a comparison between verbal and nonverbal motions.

To extend and strengthen such conclusions, however, a comparison between the qualitative evaluation of a teacher's performance (effective or ineffective), and the quantity or frequency of different types of nonverbal actions exhibited by the teacher may enable researchers to construct more effective teaching models if in fact "effective and ineffective" teachers exhibit different (types or frequency) of nonverbal moves.

TEACHING MODELS

Assuming this need for comparison, in order to develop newer, more beneficial models, the researcher must consider certain concepts underlying learning and the impact of nonverbal communication in the classroom.

A critical assumption is that through this comparative analysis of teachers' moves, models can be generated. Specifically, researchers design models by isolating elements of the total communication process for purposes of observing particular components of the total process in order that they may use the observable elements in training situations. If Gibson's (1968), rationale for the use of teaching models is acceptable; that such models are among the most effective teaching instruments; it can be implied that the generation of more complete, real to life, teaching models based on a comparative analysis of effective and ineffective teacher's nonverbal behaviors is justified. Gibson states:

> It is widely agreed that performance models are among our most effective teaching instruments. As teachers of speech, we instruct our students to read speeches acclaimed as classics. The preparation of teachers can follow the same general route. When a student microteaches a unit in an unusually effective and creative manner, his performance should be extracted from the videotape and preserved for replay to methods classes in succeeding terms.[8]

Allen and Ryan reaffirm this conviction that "perhaps the most effective way to instruct teachers in the use of these nonverbal cues is to show them a model using these cues in a teaching context."[9]

Restating the importance of studying teachers' nonverbal behaviors, the findings of Galloway, Grant and Hennings and Adams and Biddle are illustrative of the impact of extralinguistic moves in the classroom. Indeed, if we define learning as a "relatively permanent change in a

behavioral tendency and is the result of reinforced practice..."[10] where "the reinforced practice is the cause of the learning,"[11] it becomes apparent that the nonverbal and verbal behaviors of a teacher do act as reinforcers of behaviors (Thorndyke, 1913; Verplanck, 1955; and Rosenthal and Jacobson, 1968).

The implications of this concept of nonverbal moves in terms of reinforcers of behavior are that nonverbal behavior can be either intentional or unintentional. The teacher can intentionally communicate (nonverbally) such things as: that students should be quiet, be seated, or that class is not yet over. DeCecco would argue that this nonverbal behavior is subsumed within a total verbal framework, that teachers utilize nonverbal cues attempting appropriate motivation practices including: well-timed smiles and pats, a furrowed brow, or directing with a pointed finger (DeCecco, 1968).

On the other hand, the teacher may unintentionally exhibit personal moves such as posture changes, scratching his ear, or twisting a ring on his finger. Regardless of the nonverbal cue, they serve to convey meanings to the students. Further, the process of schooling is a communication process involving verbal and nonverbal codes (Victoria, 1972). Indeed, as Knapp states, "The subtle nonverbal influences (underlining mine) in the classroom can sometimes have dramatic results..."[12] These nonverbal behaviors may serve to identify the teacher's authoritarian role. The implication to be drawn here is that the teacher can do little to avoid controlling the classroom activities of the students. In other words, though the teacher's authority is based on school law, his nonverbal

behavior in this role can be conceived (by the student) as imposed control or as a supportive behavior to students who are capable of controlling themselves. The essence of this amounts to making distinctions regarding the types of authority exercised. This conclusion can also be extended to other teacher roles such as the student's concept of the teacher as human, as interested or disinterested, or as excited or bored.[13]

Investigating teacher influence in the classroom context is a difficult task. Though most researchers would accept generally defined classifications of nonverbal motions (Knapp, 1972), identifying the meaning of these moves in a specific context requires more than an understanding of general labels.

With few exceptions, the majority of investigations aimed at identifying nonverbal behaviors have centered around first, the development of categories of nonverbal moves, and second, the utilization of the most appropriate methods of recording these motions (Galloway, 1968; Grant and Hennings, 1971; Love and Roderick, 1971; Civikly, 1973). These two components, category systems and effective recording of nonverbal acts, are perhaps the most crucial and difficult to achieve in nonverbal research.

A comprehensive review of the research literature in nonverbal communication will emphasize the difficulty in identifying and defining nonverbal motions. Illustrative of this point is the fact that researchers have sufficiently isolated and defined the research variables within the context of nonverbal behaviors in the classroom (Galloway, 1962; Love and Roderick, 1971; Grant and Hennings, 1971; Civikly, 1973). These researchers have developed and tested nonverbal category systems; most

notable of which is the Love and Roderick system (included here).

Ekman and Friesen have defined nonverbal motions as "...any movement or position of the face and or the body...," that provide a general concept of these motions. Though adequate, this definition fails to provide the specificity necessary for the task at hand, that is identifying, labeling and coding specific nonverbal motions. However, the Love and Roderick Nonverbal Categories provide the necessary specificity by means of operationalizing the meaning of nonverbal behaviors of teachers within the classroom context (see Trainers Guide).

Moreover, the simplicity of the Love and Roderick system, in terms of practicality of use and procedures for coding further enhance this selection. Evidence of the effective operationalization and structure of this system lies in the reported inter-coder reliability levels of approximately .88.

Finally, the varied application of the Love and Roderick categories ranging from elementary to secondary teacher situations across a variety of subject areas suggests this to be a potentially strong and valid instrument. For these reasons, the Love and Roderick system is considered representative of the substantial strides in this area.

However, most of these category systems require the combined effective use of 1) a human element, and 2) technological aspects; two components of primary concern to this project. First, all of these coding systems demand that nonverbal motions be identified, analyzed (in terms of their appropriateness for a single category), and coded or tabulated by human coders. It is precisely this human element that can be considered a weakness in this research format.

The process of coding assumes that the coders 1) have a comprehensive understanding of the full range of nonverbal motions subsumed within the particular category system, 2) that coders can distinguish between different motions and context of occurrence, and 3) that coders can assign to appropriate categories consistently over time. These three assumptions, if fulfilled, should provide acceptable levels of coder reliability.

The issue of coder reliability is important for three reasons. First, the researcher must design a coder training system that is capable of insuring satisfactory intercoder, and intracoder reliability figures. Second, to date each category system available utilizes different categories, different definitions of nonverbal moves, and different coding procedures. Specifically, there is little generalization/standardization of these elements from one system to another. Third, to establish coder reliability, provision must be made to provide specific definitions and examples of each category of moves for the coders.

Clearly implied within the literature is the fact that these category systems are being used in different contexts and seek to identify particular characteristics of nonverbal moves specific to the investigation. However, also implied from the data available is that none of the investigations are achieving consistent coder reliability levels. Reported reliability figures range from .68 (Civikly, 1973) to .88 (Love and Roderick, 1971) to .97 (Grant and Hennings, 1971).* Figures are not available

*The .97 reliability figure shown for the Grant and Hennings, 1971 system does not indicate an overall coefficient of agreement. It does represent an appropriate level of agreement within one of their two major categories.

for current investigations utilizing Galloway's categories.

Based on this need to develop a coder training system designed to insure significantly consistent coder reliability levels, the goal of this project is to design a training program that will build confidence and reliability for the coders as they apply the Love-Roderick category system to real life video presentations of teacher classroom nonverbal behavior.

This design will feature 1) the use of instructional technology primarily regarding the format of the coder and trainer working guides, and the recording of nonverbal moves, and 2) the development of specific definitions, rules and training procedures on concepts of learning.

INSTRUCTIONAL TECHNOLOGY

Instructional technology is the non-human element of nonverbal research. The importance of technological elements in this regard is unquestioned. Researchers have utilized numerous forms of equipment trying to determine the most efficient methods of recording nonverbal moves. Boucher and Ekman (1975), utilized photographs in investigations of facial affects. Birdwhistell (1970), has developed a complicated set of pictures/symbols for use in his kinesic analysis system. Most notable of current developments in the use of technology is the computerized approach designed by Ekman and his associates (1970), that involves the coordinated use of videotape recorders and cameras, video-disc recorders and data processing equipment.

Most significant in terms of support for combining instructional technology and design with a training program based on concepts of

learning and nonverbal data is perhaps a definition of instructional technology.

> ...Instructional technology goes beyond any particular medium or device. In this sense, instructional technology is more than the sum of its parts. It is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication, and employing a combination of human and nonhuman resources to bring about more effective instruction.[14]

Perhaps somewhat ideal in terms of its widespread application, this definition serves to support the attempt to develop and utilize learning/training packages on a foundation consisting of both the human and technical concepts of learning.

There are restrictions on any research project. One of the most forceful limitations is the type, quality and amount of technological equipment available to the researcher. Lacking the sophisticated equipment available to Ekman et al., this project will utilize the facilities of the Department of Speech and Dramatic Art, University of Missouri-Columbia. The equipment features: 1) one Ampex VP 5100 one inch video recorder, 2) one Wollensak 3M Videocassette system, and 3) two GBC VF-302 cameras.

EXPLANATION: THE TRAINING SYSTEM

The purpose of this training program is to build experimental confidence and reliability for nonverbal coders as they apply 1) the Love-Roderick category system to practice tapes and 2) to subsequent real-life video presentations of teacher classroom behavior. Three questions will

be considered in this portion of the paper. 1) Which category system will be applied, and why, 2) What method will be employed to determine coder reliability, and 3) How should the package be designed?

CATEGORY SYSTEM

The Love and Roderick system has been chosen for use in this project.[15] The criteria for this choice include both the appropriateness of this instrument for use in analyzing nonverbal moves within the classroom context, and the validity-reliability of the instrument.

As previously stated, the Love and Roderick system was selected because it was designed to operationalize motions of the teacher within the classroom context; moreover, their category system has been validated through application in several educational settings ranging from elementary to secondary levels and across a variety of subject areas. Intercoder reliability levels of .88 have been reported.[16] After examining several nonverbal category systems (Grant and Hennings, 1971; Galloway, 1962), the Love and Roderick system was chosen specifically for the reasons cited. In addition, even though other category systems have shown higher reliability levels (Grant and Hennings, 1971), should be noted that the Grant and Hennings system provides categories of a seriously general format. This vagueness, of the Grant and Hennings system, stems from the fact that only two major categories are included, instructional moves and personal motions of the teacher.

Though each of these two categories, instructional and personal are defined, and examples provided for each, it appears that heaviest emphasis

is placed on the instructional moves of the teacher. Therefore, the system does not appear to concentrate on those moves, such as supportive behaviors, that would fall on a possible continuum between instructional and personal moves. In contrast, the nine categories of the Love and Roderick system are more sensitive to, and inclusive of this wider range of teacher motions.

DATA ANALYSIS

Determination of coder reliability will be completed through a method of percentage agreement (Fox, 1969). For example, "the percentage of agreement is equal to 100 times the numbers of units of data coded identically divided by the total number of units of data coded."[17] This procedure will provide the capability necessary to measure both inter-coder and intra-coder consistency of reliability.

TRAINING DESIGN

The training package includes: 1) a coder's training guide, 2) a trainer's guide, 3) a video-cassette-film comprised of training sequences and 4) a final presentation prepared to exhibit behaviors that will be examined by the coders in the actual treatment.

TRAINING GUIDES

Concept learning is commonly defined as "...a category into which experiences may be classified.[18] For example, the word car represents a category into which many other particular objects within the environment can be classified. More specifically then, nonverbal motions are concepts into which other attributes or motions within the environment may be classified. For instance, Love and Roderick's second category displays students ideas, will include several nonverbal behaviors with similar characteristics. These behaviors, therefore, serve as the defining agents for that concept. They may include such teacher moves as: 1) writing student's comments on the board, or 2) putting student's work on the bulletin board. Obviously then, there are behaviors that would not be included within this category. One example of such a behavior would be, the teacher collects a student's work and discards it in the waste can.

The concept learning task of identifying and labeling nonverbal behaviors thus involves attribute identification. In this sense, coders must be capable of selecting and grouping together, those nonverbal behaviors that belong together (are very similar) and identifying the appropriate category into which the grouped behaviors should be classified. This process implies that the coders will, of necessity, be able to differentiate those behaviors that do not "fit" within a given category (negative examples).

The format and components of both training guides are based on several assumptions of learning: first, that this task, the identification, coding and recording of teachers' nonverbal motions, involves concept formation, second, that there are conditions underlying effective concept

learning-formation, third, that these conditions for learning must be established before effective concept formation can occur, and fourth, that the knowledge and ability to apply concepts must be evaluated (Travers, 1967; Bourne, 1966; Gagne, 1966, 1974; and Davis, Alexander and Yelon, 1974).

Each of these conditions have been satisfied within the structure of this training program. The coders' task involves the identification and categorization of nonverbal motions. This task requires the learning of concepts and the ability to apply both definitions, and rules pertinent to each category. This task is necessary before efficient coding behavior can occur.

A review of literature strongly emphasizes four major conditions vital to the learning of concepts. The most important of these conditions states that the learner needs specific definitions of each concept.[19] These definitions must be learned and applied (Markle, 1975; Bourne, 1966; Travers, 1967). Moreover, learning theorists suggest that these definitions include a listing of positive and negative exemplars for purposes of clarification (Markle, 1975; Gagne, 1974). Crucial to this defining process is the statement of rules that "specify how the relevant attributes are combined for use in classifying stimuli."[20]

Based on these necessary conditions, the following steps were taken to insure effective coder training. Following the guidelines of Gagne (1974), coder objectives were developed. These objectives specify: 1) the action to be carried out, and how, 2) the end result to be expected, 3) the situation or information requisite to achieving the task, 4) methods to be used to carry out the task, and finally, 5) a precise statement of necessary rules or capabilities required for this task.[21]

Additional inclusions are trainer objectives based on these same criteria; these goals are intended to enhance the trainer's ability to aid the coders' progress.

To exemplify this structure, an example of such a coder objective follows.

> Given three video tape sequences, for each practice session, (each ten seconds in length), -- (situation) -- the coder will be able to distinguish, identify -- (action) -- and classify -- (object) -- those non-verbal behaviors illustrative -- (capability required) -- of each category presented -- (tools).

Indeed, these objectives must be reinforced through training; therefore, guidelines for coder behavior were established to clarify this task. Exemplary of these guidelines is the statement:

> No value judgement is assigned to any nonverbal behavior. Coders are not to argue with or evaluate these motions, only identify and code them. The intended purpose behind these guidelines is to clarify the objectives and to prepare the coder for the follow-up training sessions.

The general goal of the remainder of the training guide is to operationalize the categories/concepts for the coders. The approach taken to achieve this goal consists of nine sequences, one for each category; thus, each category is (independently) presented and studied to insure simplicity both in learning the task and in performing the task. Since the coders will be classifying behaviors appropriate to only one category at a time, confusion can be avoided.

In addition, each category sequence includes a specific definition of the concept, a listing of positive exemplars, a statement of rules pertaining to that concept, and a listing of negative exemplars for comparison purposes. Gagne (1975), insists that evaluation criteria be established

for each objective. In this context, the criteria of evaluation is stated within the trainer's guide. Specifically, the minimum acceptable level of reliability (which is the evaluative tool), for this program is a .75 intra-coder and inter-coder confidence level. Determination of this level for acceptance was based on those levels previously stated in this paper. Reliability levels ranged from approximately .60 to .95. Therefore, the .75 level of reliability was deemed as a reasonable compromise between the reported .60 and .97 level range. Indeed, it is the goal of this training procedure to establish guidelines for obtaining not only acceptable levels of reliability, but to do so in a consistent manner.

VIDEO TAPES

The video tapes are designed to provide practical experience consistent with both guides; that is, following each sequence a minimum of thirty seconds of actual teaching segments is provided. Both positive and negative exemplars of that particular category are demonstrated. Also included in the guide are coder sheets identical to those that will be used in final sessions. The video tapes provide practice for the manual requirements of the task, and also familiarize coders and trainers with the time sequencing on the tapes.

The advantages derived from the use of video-cassette playback are numerous. They include: 1) instant playback retrieval capabilities that allow for ease in viewing and reviewing, 2) immediate feedback for both the coders and trainers in that following an initial coding session, a replay of the sequence combined with discussion and additional clarification will enhance the coders' understanding of particular moves, 3) use

of the tapes will enable the coder to become familiar with the stimuli in terms of previewing the tape, and 4) the trainer can manipulate or vary the number of viewings to guarantee overlearning effects.

With this analysis of the training package, and the awareness that if coding is not reliable, all other aspects of this form of research are automatically unreliable, the reader is invited to examine portions of the coders manual included herein.

NOTES

[1] Mark Knapp, Nonverbal Communication in Human Interaction, (New York: Holt, Rinehart and Winston, Inc., 1972), 14.

[2] Peggy Amidon, Nonverbal Interaction Analysis: A Method of Systematically Observing and Recording Nonverbal Behavior, (Minneapolis: Association for Productive Thinking, 1971), 1.

[3] David Riesman, The Lonely Crowd, (New Haven: Yale University Press, 1950-1971), 5.

[4] James Victoria, "Affective Education," Theory Into Practice, 10 (October, 1971), 300.

[5] Gilbert Highet, "Art of Teaching," in Dimensions of Oral Communication Instruction, ed: Keith Erickson (Dubuque, Iowa: William C. Brown Company, Publishers, 1970), 21.

[6] Charles M. Galloway, "Nonverbal Communication in Teaching," Teaching: Vantage Points for Study, edited by Ronald T. Hyman (New York: J. B. Lippincott, 1968), 70.

[7] Barbara M. Grant and Dorothy Grant Hennings, The Teacher Moves: An Analysis of Non-Verbal Activity, (New York: Teachers College Press, Teachers College, Columbia University, 1971), 4.

[8] James W. Gibson, "Using Videotape in the Training of Teachers," The Speech Teacher, 17 (March 1968), 107-108.

[9] Dwight Allen and Kevin Ryan, "The Component-Skills Approach," Speech Communication Instruction, Deems M. Brooks, ed., (New York: David McKay Company, Inc., 1972), 78.

[10] John P. DeCecco, The Psychology of Learning and Instruction: Evaluation Psychology, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), 243. Note: part of the quotation was originally found in Gregory Kimble and Norman Garmezy, Principles of General Psychology (New York: The Ronald Press, 1963, second edition), 163.

[11] DeCecco, p. 243.

[12] Knapp, p. 9.

[13] Bruce J. Biddle and William J. Ellena, Contemporary Research on Teacher Effectiveness, (New York: Holt, Rinehart and Winston, 1964), 196-231.

[14] Report of the Commission of Instructional Technology to the President and the Congress of the United States, by Carl D. Perkins, Chairman. Washington, D. C.: Government Printing Office, 1970.

[15] Alice M. Love and Jessie A. Roderick, "Teacher Nonverbal Communication: The Development and Field Testing of an Awareness Unit," Theory into Practice, 10 (October 1971), 295-299.

[16] Response to a letter of inquiry received by Thomas Willett, May 1975 from Jesse A. Roderick, University of Maryland.

[17] David J. Fox, The Research Process in Education, (New York: Holt, Rinehart and Winston, 1969), 669.

[18] Robert M. W. Travers, Essentials of Learning, (New York: Collier-Macmillan Limited, 1967), 294.

[19] Travers, p. 294.

[20] Lyle E. Bourne, Jr., Human Conceptual Behavior, (Boston: Allyn and Bacon, Inc., 1966), 15.

[21] Robert M. Gagne and Leslie J. Briggs, Principles of Instructional Design, (New York: Holt, Rinehart and Winston, Inc., 1974), 30.

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SUMMARY

The purpose of this training is to build confidence and reliability for the coders as they apply the Love-Roderick category system to practice tapes and then to subsequent real life video presentations of teacher classroom behavior.

Five sub-goals are incorporated within this prupose statement--they are:

1) To provide you with a working definition of nonverbal communication.

2) To familiarize you with the use of the Love-Roderick category system.

3) To answer any questions you may have regarding the use of this category system.

4) To provide you with the opportunity to apply the category system to practice tapes.

5) To provide you the opportunity to apply the category system to actual teaching presentations.

GENERAL OBJECTIVE

After working through the training guide, video tape presentation and practice situations, the coder will be able to distinguish, identify and categorize specific teacher nonverbal behavior into one of the nine nonverbal categories studies.

SPECIFIC CODER OBJECTIVES

Given three video tape sequences, for each practice session (each ten seconds in length), the coder will be able to classify those nonverbal behaviors illustrative of categories:

1) Accepts or praises student behavior
2) Displays students' ideas
3) Shows interest in student behavior
4) Moves to facilitate student-to-teacher interaction
5) Gives directions to students
6) Shows authority toward students
7) Focuses students' attention on important points
8) Demonstrates and/or illustrates
9) Personal motions

GROUND RULES FOR TALLYING THE LOVE-RODERICK
CATEGORIES OF TEACHER NONVERBAL BEHAVIOR

1. No value judgment is assigned to any nonverbal behavior. Coders are not to argue with or evaluate these motions, only identify and code them.

2. Category seven is distinguished from category eight by looking at the nonverbal behavior in terms of the "whole": if the nonverbal behavior serves to focus the students' attention on one part of the whole, it is category seven, as opposed to showing the student an entire concept which is category eight. For example, if a teacher shoots a foul shot for a group of students, this is tallied as cateogory eight. While if a teacher shows how to hold the ball for a foul shot, this is focusing on only part of the total act and is tallied in category seven.

3. A ten second time interval will be used for tabulation, e.g., at the end of or during each ten second interval you are to code the behaviors observed at that time. At the end of each interval the machine may be stopped and if necessary the preceding interval of time replayed. (This applies to both practice tapes and real life tapes.)

4. A behavior is recorded by a ( ) on the tally sheet. A separate tally should be recorded for each behavior observed. For example, if the teacher 'accepts or praises student behavior' by smiling--'focuses student attention on important points' by using a pointer and 'shows authority toward students' by frowning, then three separate tallies would be recorded--one for each category.

5. If the teacher simultaneously 'accepts or praises student behavior' by nodding head affirmatively while 'showing interest in student behavior' by maintaining eye contact, then a tally for each category would be recorded.

6. If a teacher uses simultaneously several moves all belonging to the same category then only one tally is recorded for that observation.

7. Any teacher behavior exhibited during a ten second sequence is to be noted once, e.g., if the teacher maintains eye contact throughout the ten seconds it is recorded once. If the teacher has contact, then breaks it and returns to it all during the same time sequence, then two tallies are made for eye contact during that time interval.

8. A list of positive examples is provided for each behavior category. Remember, that these are not the only possible answers/instances of each category. They are not inclusive.

GROUND RULES CONTINUED

Definition

The definition of nonverbal communication/behavior most applicable to this task is: "any movement or position of the face and/or the body."* (e.g., eye contact, facial expressions, posture, general body movement, gestures, etc.)

*The actual definition stated comes from: Paul Ekman and Wallace Friesen, "The Repertoire of Nonverbal Behavior: Categories, Origins, Usage and Coding," Semiotica, 1 (1969), 49.

CATEGORY NUMBER ONE:

ACCEPTS OR PRAISES STUDENT BEHAVIOR

DEFINITION:

Teacher behavior directed toward the student(s), that tends to enhance, reinforce, please or suggest positive feedback regarding a student behavior.

POSITIVE EXAMPLES OF CATEGORY ONE:

The teacher:

1) smiles (at student).

2) affirmatively shakes head and/or smiles.

3) pats student on the back (or other physical nonverbal gestures of acceptance such as placing hand on shoulder or head of student, or putting arm around student).*

4) winks (observed as intentional or purposive, not an habitual or nervous twitch which will fall within the parameter of the personal moves category).**

5) places forefinger and thumb together (A-OK sign).

6) claps.

7) raises eyebrows and/or smiles (and other affirmative signals).***

NOTE:

Remember that the and/or rule applies here. That is to say, that any nonverbal behaviors specific to this category will be considered as positive examples whether they be exhibited independently or in combination.

For example, the seventh attribute listed in category one states: that the teacher "raises eyebrows and/or smiles." These two behaviors could occur and be listed separately if they occur independent of each other in time. Indeed, should the teacher smile, shake his head affirmatively, and clap (2, 1, 6) at the same time, you would code this as a single positive instance of category one.

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*Added to the original category system for clarification of this category
**Added to the original system
***Added to the original system

CATEGORY ONE CONTINUED

NEGATIVE EXAMPLES:

Some teacher behaviors that do not conform to category one

The teacher:

1) negatively shakes his head.

2) frowns (at student).

3) presents "thumbs down sign" or "your out" signal.

4) turns away from the student when positive feedback is expected.

REMEMBER:

An inappropriate or contradictory combination of behaviors such as, the teacher smiles and shakes his head negatively will not be considered a positive instance of this category. However, the determination of any contradiction may have to be based on the verbal context in which it occurs. This rule will apply to each of the nine categories coded.

TRAINERS GUIDE FOR A
NONVERBAL CLASSIFICATION SYSTEM

BARRY FR. MORGANSTERN

©

SUMMARY

The purpose of this training program is to build experimental confidence and reliability for the coders as they apply the Love-Roderick category system[1] to practice tapes and then to subsequent real life video presentations of teacher classroom behavior.

Five sub-goals are incorporated within this purpose statement--they are:

1) To provide the coders with a working definition of nonverbal communication.

2) To familiarize coders with the use of the Love-Roderick category system.

3) To answer any questions coders may have regarding the use of this category system.

4) To provide coders with the opportunity to apply the category system to practice tapes (cassette video tapes).

5) To provide coders the opportunity to apply the category system to actual teaching presentations.

6) To achieve a minimum reliability level of .75 or higher for intra-coder and inter-coder confidence.[2]

GENERAL OBJECTIVE

After working through the training guide, video tape presentation and practice situations, the coder will be able to distinguish, identify and categorize specific teacher nonverbal behavior into one of nine nonverbal categories studied.

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[1] From Alice M. Love and Jessie A. Roderick, "Teacher Nonverbal Communication: The Development and Field Testing of an Awareness Unit," Theory into Practice, 10 (October 1971), 295-299.

[2] Reliability levels will be determined by Fox, David J. The Research Process in Education, 1969.

SPECIFIC CODER OBJECTIVES: PRACTICE TAPES

Given three video tape sequence, for each practice session (each ten seconds in length), the coder will be able to classify those nonverbal behaviors illustrative of categories:

1) Accepts or praises student behavior*
2) Displays students' ideas
3) Shows interest in student behavior
4) Moves to facilitate student-to-teacher interaction**
5) Gives directions to students
6) Shows authority toward students
7) Focuses students' attention on important points
8) Demonstrates and/or illustrates
9) Personal motions***

PROCEDURES: PRACTICE TAPES

The trainer should be aware of the capabilities of this program and should utilize the video tape provided in accordance with the following guidelines.

1) The trainer should be totally familiar with the coder's guide, the trainer's guide, the coding process, and the video taped presentations.

2) The trainer should provide individual coders with a complete Coder's Guide. Coders are to be instructed to review the guide for several days, on their own, to become familiar with the categories, definitions and instructions.

3) Following this initial contact with the Coder's Guide, coders should meet with the trainer and discuss the categories, the coding procedures and the guidelines for coding. Note, that this should be a group meeting-adventure to insure conformity in instructions and understanding. (It is suggested that coders should view samples of the video tape presentations to further familiarize them with the process.)

4) The purpose of the second meeting is to review material, definitions, procedures and finally to begin practice coding each category.

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*Categories one and two from the original Love-Roderick system have been collapsed due to close similarities.

**Category four was slightly modified to read moves to facilitate student-to-teacher instruction rather than student-to-student interaction.

***This category is adapted from Grant and Hennings, The Teacher Moves: An Analysis of Nonverbal Activity.

6) The video cassette program contains three ten-second sequences of teacher nonverbal behavior. In all cases, these sequences will include both positive and negative exemplars for each category presented. Each sequence should be viewed several times and discussed in terms of the applicable criterion. The coders will then view the tape again, this time identifying and classifying teacher behaviors into their respective categories using the code sheets provided in the coder's guide.

7) After each practice session, coder's classifications are to be discussed and assessed for understanding and accuracy.

8) Repeat the practice session (for a single category) until coders are familiar with, and understand the category and coding procedures. Once coders have a strong grasp of the category, review by having them recode the category several more times checking for consistency and allowing for overlearning to occur.

9) Proceed with steps (5, 6, 7) for each of the nine categories.

10) This is a tedious procedure if continued for too long a period of time without rest. Rest periods should be provided during each session. Indeed, this training can be divided into a two or three day period though it is suggested that training takes place on consecutive days.

11) Following the group training sessions, coders can practice or code your final presentation individually or as a group provided the trainer is present.

DEFINITION

The definition of nonverbal communication/behavior most applicable to this task is: "any movement or position of the face and/or body."[3] (e.g., eye contact, facial expressions, posture, general body movement, gestures, etc.)

SPECIFIC CODER OBJECTIVES: FINAL TAPE

Following comprehensive practice training for each category, coders will be able to: classify those nonverbal behaviors illustrative of each of the nine categories, by coding only one category at a time.

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[3]The actual definition stated comes from: Paul Ekman and Wallace Friesen, "The Repertoire of Nonverbal Behavior: Categories, Origins, Usage and Coding," Semiotica, 1 (1969), 49.

TRAINER GUIDELINES

In the effort to aid the coder, the trainer should follow these guidelines:

1) Allow coders to view the final tape several times just to become familiar with the content/context. Discussion of the tape should accompany these viewings.

2) The final tape has ten-second sequences dubbed in verbally that identify coding intervals similar to the practice tapes. The coder is to then view the entire tape with his only purpose being to identify and code behaviors in category one "accepts or praises student behavior" for each of the ten-second intervals.

3) The tape can be stopped at any time to allow the coder to "catch up" or to review any portion of the tape.

4) The coder should view the entire tape several times coding only category one. (There is no limit to the number of times the coder can view the tape.)

5) Upon completion of category one, the coder should begin category two, three, etc., following steps (1-4).

GROUND RULES FOR TALLYING THE LOVE-RODERICK
CATEGORIES OF TEACHER NONVERBAL BEHAVIOR

1. No value judgment is assigned to any nonverbal behavior. Coders are not to argue with or evaluate these motions; only identify and code them.

2. Category seven is distinguished from category eight by looking at the nonverbal behavior in terms of the "whole": If the nonverbal behavior serves to focus the students' attention on one part of the whole, it is category seven, as opposed to showing the student an entire concept which is category eight. For example, if a teacher shoots a foul shot for a group of students this is tallied as category eight. While if a teacher shows how to hold the ball for a foul shot, this is focusing on only part of the total act and is tallied in category seven.

3. A ten-second time interval will be used for tabulation, e.g., at the end of or during each ten-second interval you are to code the behaviors observed at that time. At the end of each interval the machine may be stopped and if necessary the preceding interval of time replayed. (This applies to both practice tapes and real life tapes.)

4. A behavior is recorded by a ( ) on the tally sheet. A separate tally should be recorded for each behavior observed. For example, if the teacher 'accepts or praises student behavior' by smiling--'focuses student attention on important points' by using a pointer and 'shows authority toward students' by frowning, then three separate tallies would be recorded--one for each category.

5. If the teacher simultaneously 'accepts or praises student behavior' by nodding head affirmatively while 'showing interest in student behavior' by maintaining eye contact, then a tally for each category would be recorded.

6. If a teacher uses simultaneously several moves all belonging to the same category then only one tally is recorded for that observation.

7. Any teacher behavior exhibited during a ten-second sequence is to be noted once, e.g., if the teacher maintains eye contact throughout the ten seconds it is recorded once. If the teacher has contact then breaks it and returns to it all during the same time sequence, then two tallies are made for eye contact during that time interval.

8. A list of positive examples is provided for each behavior category. Remember, that these are not the only possible answers/instances of each category. They are not inclusive.

9. If a behavior is initiated in one ten-second interval and is carried forward into the next interval, then the behavior should be recorded in the interval in which it began

CATEGORIES: DEFINITIONS,

EXAMPLES AND RULES

CATEGORY NUMBER ONE:

ACCEPTS OR PRAISES STUDENT BEHAVIOR*

DEFINITION:

Teacher behavior directed toward the student(s), that tends to enhance, reinforce, please or suggest positive feedback regarding a student behavior.

POSITIVE EXEMPLARS OF CATEGORY ONE:

The teacher:

1) smiles (at student).

2) affirmatively shakes head and/or smiles.

3) pats student on the back (or other physical nonverbal gestures of acceptance such as placing hand on shoulder or head of student, or putting arm around student).**

4) winks (observed as intentional or purposive, not an habitual or nervous twitch which will fall within the parameter of the personal moves category).***

5) places forefinger and thumb together (A-OK sign).

6) claps.

7) raises eyebrows and/or smiles (and other affirmative signals).****

NOTE:

Remember that the and/or rule applies here. That is to say, that any nonverbal behaviors specific to this category will be considered as positive examples whether they be exhibited independently or in combination.

---

*Category one and two from the original system have been collapsed due to close similarities in definition.

**Material in parentheses added to the original category system for clarification of this category.

***Added to the original system.

****Added to the original system.

CATEGORY ONE CONTINUED

For example, the seventh attribute listed in category one states: that the teacher "raises eyebrows and/or smiles." These two behaviors could occur and be listed separately if they occur independent of each other in time. Indeed, should the teacher smile, shake his head affirmatively, and clap (2, 1, 6) at the same time, you would code this as a single positive instance of category one.

NEGATIVE EXEMPLARS:

Some teacher behaviors that do not conform to category one

The teacher:

1) negatively shakes his head.

2) frowns (at student).

3) presents "thumbs down sign" or "you're out" signal.

4) turns away from the student when positive feedback is expected.

REMEMBER:

An inappropriate or contradictory combination of behaviors such as, the teacher smiles and shakes his head negatively will not be considered a positive instance of this category. However, the determination of any contradiction may have to be based on the verbal context in which it occurs. This rule will apply to each of the nine categories coded.

CATEGORY NUMBER TWO:

DISPLAYS STUDENTS IDEAS

DEFINITION:

Any visual teacher behavior involving the display of students spoken, written or pictorial ideas.

POSITIVE EXEMPLARS OF CATEGORY TWO:

The teacher:

1) writes student's comments on the board.

2) puts student's work on bulletin board.

3) holds up a student paper or project and displays it to the class members (and/or passes it around the class).*

4) provides for nonverbal student demonstration.

NOTE:

The and/or rule will also apply here. Should the teacher hold up a student paper for display, then attaches it to the bulletin board, this combination of (3, 2) will be coded as a positive instance of category two. Again, these behaviors, if individually exhibited in time, will also constitute positive instances.

NEGATIVE EXEMPLARS:

The case for category two

This category is somewhat unique, in that a coder must realize that the teacher either does or does not display students' ideas. For example, the teacher collects a student's work and simply discards the work in the waste can. Obviously, this is not a display of the student's ideas.

---

*Added to the original system for clarification of this category.

CATEGORY NUMBER THREE:

SHOWS INTEREST IN STUDENT BEHAVIOR

DEFINITION:

The teacher creates an atmosphere that displays interest in student behavior.

POSITIVE EXEMPLARS OF CATEGORY THREE:

The teacher:

--establishes and maintains eye contact (with the student).

NOTE:

In this category, the only positive instance of this category requires that you the coder be able to observe the teacher's establishment of eye contact with the student(s). For example, if a teacher establishes eye contact with the student as opposed to mere continuation, maintains it for a moment (1.5-3.0 seconds), then switches his focus to the group and maintains it for the required time; then you would code both of these positive instances as two separate moves within a given time interval.

NEGATIVE EXEMPLARS FOR CATEGORY THREE:

Again, in this category, as with category two, the teacher either does or does not establish and maintain eye contact with the student(s). For instance, if the instructor's eye contact is not sustained but rather frequently and quickly broken, then it will be considered a negative example.

---

*Added to the original system for clarification of this category.

CATEGORY NUMBER FOUR:

MOVES TO FACILITATE STUDENT-TO-TEACHER INTERACTION

DEFINITION:

Those bodily movements of the teacher that signal approaching as opposed to withdrawing behavior regarding students.

Bodily movements will be distinguished from simpler, smaller gestures of the hand, arms and neck. Embodied in the critical attribute of bodily movements are the requirements that the teacher must make a major bodily shift in position, such as leaning forward; or must take at least one full step not just a slight shift in position.

POSITIVE EXEMPLARS OF CATEGORY FOUR:

The teacher:

--physically moves into the position of a group member (steps toward or away from the grouo--for example, steps away from the group (class) in a gesture intended to "pull a response" from the group).*

NOTE:

The and/or rule also applies in this specific category as suggested in the example stated above. Additionally, teacher moves in this category will be observed in a group orientation as opposed to the teacher's move oriented toward the single student. This individual context will be coded within the limits of category seven.

NEGATIVE EXEMPLARS OF CATEGORY FOUR:

The teacher:

1) gestures (arm or hand wave) to the students signaling they move closer to him.

2) physically moves toward a single student and/or kneels down by his desk or leans over his shoulder.

---

*Added to the original system for clarification of this category.

CATEGORY NUMBER FIVE:

GIVES DIRECTIONS TO STUDENTS

DEFINITION:

The teacher intends to channel, elicit or direct student behavior.

POSITIVE EXEMPLARS OF CATEGORY FIVE:

The teacher:

1) indicates a reference point or direction by pointing with the hand.

2) focuses upon a specified area or object.

3) employs a predetermined signal, such as raising hands for students to stand up (as a band leader might do).*

4) extends arms forward and beckons with his hands.

5) points to a student for answers.

NOTE:

The application of the and/or rule for category five can be described in the following way: should the instructor point to the clock on the wall behind the students, and/or focuses upon the clock at the same time, then this combination of movements, would be coded into category five.

A second example of this rule illustrates the teacher focusing on a noisy student and holding his index finger to his lips, suggesting quiet, or, the teacher could request the entire class to quiet down with the same "shh" gesture. In this case both moves would be illustrative of category five whether displayed simultaneously or separately.

---

*Added to original system for clarification.

CATEGORY FIVE CONTINUED

NEGATIVE EXEMPLARS OF CATEGORY FIVE:

The teacher:

1) uses a pointer or finger to outline or illustrate materials.

2) enumerates points by showing that number of fingers (1, 2, 3).

3) walks toward the person or object.

CATEGORY NUMBER SIX:

SHOWS AUTHORITY TOWARD STUDENTS

DEFINITION:

Those behaviors intended to, or directed toward exercising the teacher's prerogative or influence.

POSITIVE EXEMPLARS OF CATEGORY SIX:

The teacher:

1) frowns.

2) stares (within the context of this category, the eye contact involved will generally be of longer duration than that which was discussed in category three).*

3) raises eyebrows (and/or frowns).**

4) taps foot (and/or shakes head negatively).***

5) rolls book on the desk.

6) walks or looks away from the deviant (when interaction is usually expected.****

7) snaps fingers (bruskly).*****

NOTE:

The and/or rule becomes especially important for category six. For example, the third exemplar listed, "raises eyebrows" is also coded in category one. However, what distinguishes the two behaviors is the context of occurrence. Notice that category six is concerned with teacher authority as opposed to "teacher praise" as in category one. For this reason, a combination such as, the teacher raises his eyebrows and/or frowns could not be coded into category one, but is illustrative of category six.

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*Added to original system to distinguish between "types" of eye contact.

**Added for clarification between categories.

***Added for clarification.

****Added for clarification of existing category example.

*****Added to denote "kind" of behavior.

CATEGORY SIX CONTINUED

NEGATIVE EXEMPLARS OF CATEGORY SIX:

The teacher:

1) raises his eyebrows and smiles.

2) walks toward the students.

3) points to a student for a response.

4) displays a student's project.

CATEGORY NUMBER SEVEN:

FOCUSES STUDENT'S ATTENTION ON IMPORTANT POINTS

DEFINITION:

Those gestures or bodily movements of the teacher intended to reinforce, stress, or direct the students' thoughts or attention to important objects, persons or ideas.

POSITIVE EXEMPLARS OF CATEGORY SEVEN:

The teacher:

1) uses a pointer or finger.

2) walks toward the person or object.

3) taps on something (to draw attention to the object being tapped).*

4) thrusts head forward.

5) thrusts arm forward.

6) employs a nonverbal movement with a verbal statement to give it emphasis (reinforces numerical aspects by showing that number of fingers).**

NOTE:

As in previous categories, positive instances of category seven may be comprised of single teacher gestures and movements, or of combinations of these nonverbal behaviors listed. For example, the teacher may simply point to an object such as a map or a model. On the other hand, the teacher may take a step toward an object or person and thrust his arm forward and toward the object (2, 5). Either of these instances would be considered and coded as examples of category seven.

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*Added to original category system for clarification of positive exemplar.

**Removed from its original position in category five, altered in terms of added examples and inserted in category seven because the nature of the act tends to reinforce or stress rather than give directions.

CATEGORY SEVEN CONTINUED

NEGATIVE EXEMPLARS OF CATEGORY SEVEN:

The teacher:

1) extends arms forward and beckons with his hands.

2) gives directions to students.

3) turns away, ignoring a student or object.

4) paces back and forth.

5) establishes and maintains eye contact.

CATEGORY NUMBER EIGHT:

DEMONSTRATES AND/OR ILLUSTRATES

DEFINITION:

Teacher nonverbal movements serving to clarify, exemplify or explain.

POSITIVE EXEMPLARS FOR CATEGORY EIGHT:

The teacher:

1) performs a physical skill.

2) manipulates materials and media (not for display purposes as "student's work" but rather for "how to" purposes).*

3) illustrates a verbal statement with a nonverbal action (reinforces a discussion of "probability" by flipping a coin ten times for heads or tails).**

NOTE:

The and/or rule has special implications for category eight as it applies not only to positive examples, but also to the category heading itself. It is important to realize that the terms "demonstrate and illustrate" imply defining or clarifying behavior and not attention getting behavior as in category seven. That is, often times the teacher may employ nonverbal behaviors such as manipulating appropriate science apparatus while discussing or verbalizing a scientific principle in an effort to explain the instruments use. In this instance the movements would be classified in category eight.

NEGATIVE EXEMPLARS OF CATEGORY EIGHT:

The teacher:

1) holds up a student's paper.

2) points to a map on the wall.

3) states the correct steps in operating a film projector.

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*Added for clarification of existing system.

**Added for clarification of existing system.

CATEGORY NUMBER NINE:

PERSONAL MOTIONS*

DEFINITION:

Personal motions of the teacher will be defined as those moves that are idiosyncratic. These moves are not purposive. That is, they are seldom exhibited with the intention to compliment the teacher content but rather the motions are habits, nervous twitches, and extraneous movements.

POSITIVE EXEMPLARS OF CATEGORY NINE:

The teacher:

1) scratches cheek.

2) rubs back of neck.

3) plays with clothing (preening behavior).**

4) puts hands in pockets (jingles change, keys).

5) paces.

6) plays with glasses.

7) folds hands or arms.

8) leans against rostrum or wall.

NEGATIVE EXEMPLARS OF CATEGORY NINE:

Any planned-conscious signals, or gestures designed or utilized to direct, demonstrate, display or otherwise obtain a response from students will constitute a negative instance of category nine.

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*This category was adapted from Grant and Hennings, The Teacher Moves: An Analysis of Nonverbal Activity.

**Included for clarification of existing category.

CODERS GUIDE FOR A

NONVERBAL CLASSIFICATION SYSTEM

BARRY FR. MORGANSTERN

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SUMMARY

The purpose of this training is to build confidence and reliability for the coders as they apply the Love-Roderick category system to practice tapes and then to subsequent real life video presentations of teacher classroom behavior.

Five sub-goals are incorporated within this purpose statement--they are:

1) To provide you with a working definition of nonverbal communication.

2) To familiarize you with the use of the Love-Roderick category system.

3) To answer any questions you may have regarding the use of this category system.

4) To provide you with the opportunity to apply the category system to practice tapes.

5) To provide you the opportunity to apply the category system to actual teaching presentations.

GENERAL OBJECTIVE

After working through the training guide, video tape presentation and practice situations, the coder will be able to distinguish, identify and categorize specific teacher nonverbal behavior into one of the nine nonverbal categories studies.

SPECIFIC CODER OBJECTIVES

Given three video tape sequences, for each practice session (each ten seconds in length), the coder will be able to classify those nonverbal behaviors illustrative of categories:

1) Accepts or praises student behavior
2) Displays students' ideas
3) Shows interest in student behavior
4) Moves to facilitate student-to-teacher interaction
5) Gives directions to students
6) Shows authority toward students
7) Focuses students' attention on important points
8) Demonstrates and/or illustrates
9) Personal motions

GROUND RULES FOR TALLYING THE LOVE-RODERICK CATEGORIES OF TEACHER NONVERBAL BEHAVIOR

1. No value judgment is assigned to any nonverbal behavior. Coders are not to argue with or evaluate these motions, only identify and code them.

2. Category seven is distinguished from category eight by looking at the nonverbal behavior in terms of the 'whole': if the nonverbal behavior serves to focus the students' attention on one part of the whole, it is category seven, as opposed to showing the student an entire concept which is category eight. For example, if a teacher shoots a foul shot for a group of students, this is tallied as category eight. While if a teacher shows how to hold the ball for a foul shot, this is focusing on only part of the total act and is tallied in category seven.

3. A ten second time interval will be used for tabulation, e.g., at the end of or during each ten second interval you are to code the behaviors observed at that time. At the end of each interval the machine may be stopped and if necessary the preceding interval of time replayed. (This applies to both practice tapes and real life tapes.)

4. A behavior is recorded by a (✓) on the tally sheet. A separate tally should be recorded for each behavior observed. For example, if the teacher 'accepts or praises student behavior' by smiling--'focuses student attention on important points' by using a pointer and 'shows authority toward students' by frowning, then three separate tallies would be recorded--one for each category.

5. If the teacher simultaneously 'accepts or praises student behavior' by nodding head affirmatively while 'showing interest in student behavior' by maintaining eye contact, then a tally for each category would be recorded.

6. If a teacher uses simultaneously several moves all belonging to the same category then only one tally is recorded for that observation.

7. Any teacher behavior exhibited during a ten second sequence is to be noted once, e.g., if the teacher maintains eye contact throughout the ten seconds it is recorded once. If the teacher has contact, then breaks it and returns to it all during the same time sequence, then two tallies are made for eye contact during that time interval.

8. A list of positive examples is provided for each behavior category. Remember, that these are not the only possible answers/instances of each category. They are not inclusive.

GROUND RULES CONTINUED

Definition

The definition of nonverbal communication/behavior most applicable to this task is: "any movement or position of the face and/or the body."* (e.g., eye contact, facial expressions, posture, general body movement, gestures, etc.)

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* The actual definition stated comes from: Paul Ekman and Wallace Friesen, "The Repertoire of Nonverbal Behavior: Categories, Origins, Usage and Coding," Semiotica, 1 (1969), 49.

CATEGORIES: DEFINITIONS,

EXAMPLES AND RULES

CATEGORY NUMBER ONE:

ACCEPTS OR PRAISES STUDENT BEHAVIOR

DEFINITION:

Teacher behavior directed toward the student(s), that tends to enhance, reinforce, please or suggest positive feedback regarding a student behavior.

POSITIVE EXAMPLES OF CATEGORY ONE:

The teacher:

1) smiles (at student).*

2) affirmatively shakes head and/or smiles.

3) pats student on the back (or other physical nonverbal gestures of acceptance such as placing hand on shoulder or head of student, or putting arm around student).*

4) winks (observed as intentional or purposive, not an habitual or nervous twitch which will fall within the parameter of the personal moves category).**

5) places forefinger and thumb together (A-OK sign).

6) claps.

7) raises eyebrows and/or smiles (and other affirmative signals).***

NOTE:

Remember that the and/or rule applies here. That is to say, that any nonverbal behaviors specific to this category will be considered as positive examples whether they be exhibited independently or in combination.

For example, the seventh attribute listed in category one states: that the teacher "raises eyebrows and/or smiles." These two behaviors could occur and be listed separately if they occur independent of each other in time. Indeed, should the teacher smile, shake his head affirmatively, and clap (2, 1, 6) at the same time, you would code this as a single positive instance of category one.

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*Added to the original category system for clarification of this category

**Added to the original system

***Added to the original system

CATEGORY ONE CONTINUED

NEGATIVE EXAMPLES:

Some teacher behaviors that do not conform to category one

The teacher:

1) negatively shakes his head.

2) frowns (at student).

3) presents "thumbs down sign" or "your out" signal.

4) turns away from the student when positive feedback is expected.

REMEMBER:

An inappropriate or contradictory combination of behaviors such as, the teacher smiles and shakes his head negatively will not be considered a positive instance of this category. However, the determination of any contradiction may have to be based on the verbal context in which it occurs. This rule will apply to each of the nine categories coded.

CATEGORY NUMBER TWO:

DISPLAYS STUDENTS IDEAS

DEFINITION:

Any visual teacher behavior involving the display of students spoken, written or pictorial ideas.

POSITIVE EXAMPLES OF CATEGORY TWO:

The teacher:

1) writes student's comments on the board.

2) puts student's work on bulletin board.

3) holds up a student paper or project and displays it to the class members (and/or passes it around the class).*

4) provides for nonverbal student demonstration.

NOTE:

The and/or rule will also apply here. Should the teacher hold up a student paper for display, then attaches it to the bulletin board, this combination of (3, 2) will be coded as a positive instance of category two. Again, these behaviors, if individually exhibited in time, will also constitute positive instances.

NEGATIVE EXAMPLES:

The case for category two

This category is somewhat unique, in that a coder must realize that the teacher either does or does not display students' ideas. For example, the teacher collects a student's work and simply discards the work in the waste can. Obviously, this is not a display of the student's ideas.

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* Added to the original system for clarification of this category

CATEGORY NUMBER THREE:

SHOWS INTEREST IN STUDENT BEHAVIOR

DEFINITION:

The teacher creates an atmosphere that displays interest in student behavior.

POSITIVE EXAMPLES OF CATEGORY THREE:

The teacher:

--establishes and maintains eye contact (with the student).

NOTE:

In this category, the only positive instance of this category requires that you the coder be able to observe the teacher's establishment of eye contact with the student(s). For example, if a teacher establishes eye contact with a student, maintains it for a moment (1.5-3.0 seconds), then switches his focus to the group and maintains it for the required time; then you would code both of these positive instances as two separate moves within a given time interval.

NEGATIVE EXAMPLES FOR CATEGORY THREE:

Again in this category, as with category two, the teacher either does or does not establish and maintain eye contact with the student(s). For instance, if the instructor's eye contact is not sustained but rather frequently and quickly broken, then it will be considered a negative example.

CATEGORY NUMBER FOUR:

MOVES TO FACILITATE STUDENT-TO-TEACHER INTERACTION

DEFINITION:

Those bodily movements of the teacher that signal approaching as opposed to withdrawing behavior regarding students.

Bodily movements will be distinguished from simpler, smaller gestures of the hand, arms and neck. Embodied in the critical attribute of bodily movements are the requirements that the teacher must make a major bodily shift in position, such as leaning forward; or must take at least one full step, not just a slight shift in position.

POSITIVE EXAMPLES OF CATEGORY FOUR:

The teacher:

--physically moves into the position of a group member (steps toward or away from the group--for example, steps away from the group (class) in a gesture intended to "pull a response" from the group).*

NOTE:

The and/or rule also applies in this specific category as suggested in the example stated above. Additionally, teacher moves in this category will be observed in a group orientation as opposed to the teacher's move oriented toward the single student. This individual context will be coded within the limits of category seven.

NEGATIVE EXAMPLES OF CATEGORY FOUR:

The teacher:

1) gestures (arm or hand wave) to the students signaling they move closer to him.

2) physically moves toward a single student and/or kneels down by his desk or leans over his shoulder.

* Added to the original system for clarification of this category

CATEGORY NUMBER FIVE:

GIVES DIRECTIONS TO STUDENTS

DEFINITION:

The teacher intends to channel, elicit or direct student behavior.

POSITIVE EXAMPLES OF CATEGORY FIVE:

The teacher:

1) indicates a reference point or direction by pointing with the hand.

2) focuses upon a specified area or object.

3) employs a predetermined signal, such as raising hands for students to stand up (as a band leader might do).*

4) extends arms forward and beckons with his hands.

5) points to a student for answers.

NOTE:

The application of the and/or rule for category five can be described in the following way: should the instructor point to the clock on the wall behind the students, and/or focuses upon the clock at the same time, then this combination of movements would be coded into category five.

A second example of this rule illustrates the teacher focusing on a noisy student and holding his index finger to his lips, suggesting quiet, or, the teacher could request the entire class to quiet down with the same "shh" gesture. In this case, both moves would be illustrative of category five whether displayed simultaneously or separately.

NEGATIVE EXAMPLES OF CATEGORY FIVE:

The teacher:

1) uses a pointer or finger to outline or illustrate materials.

2) enumerates points by showing that number of fingers (1, 2, 3).

3) walks toward the person or object.

*Added to original system for clarification

CATEGORY NUMBER SIX:

SHOWS AUTHORITY TOWARD STUDENTS

DEFINITION:

Those behaviors intended to, or directed toward, exercising the teacher's prerogative or influence.

POSITIVE EXAMPLES OF CATEGORY SIX:

The teacher:

1) frowns.

2) stares (within the context of this category, the eye contact involved will generally be of longer duration than that which was discussed in category three).*

3) raises eyebrows (and/or frowns).**

4) taps foot (and/or shakes head negatively).***

5) rolls book on the desk.

6) walks or looks away from the deviant (when interaction is usually expected).****

7) snaps fingers (bruskly).*****

NOTE:

The and/or rule becomes especially important for category six. For example, the third exemplar listed, "raises eyebrows" is also coded in category one. However, what distinguishes the two behaviors is the context of occurrence. Notice that category six is concerned with teacher authority as opposed to "teacher praise" as in category one. For this reason, a combination such as, the teacher raises his eyebrows and/or frowns could not be coded into category one, but is illustrative of category six.

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*Added to original system to distinguish between "types" of eye contact

**Added for clarification between categories

***Added for clarification

****Added for clarification of existing category example

*****Added to denote "kind" of behavior

CATEGORY SIX CONTINUED

NEGATIVE EXAMPLES FOR CATEGORY SIX:

The teacher:

1) raises his eyebrows and smiles.

2) walks toward the students.

3) points to a student for a response.

4) displays a student's project.

CATEGORY NUMBER SEVEN:

FOCUSES STUDENT'S ATTENTION ON IMPORTANT POINTS

DEFINITION:

Those gestures or bodily movements of the teacher intended to reinforce, stress, or direct the students' thoughts or attention to important objects, persons or ideas.

POSITIVE EXAMPLES OF CATEGORY SEVEN:

The teacher:

1) uses a pointer or finger.

2) walks toward the person or object.

3) taps on something (to draw attention to the object being tapped).*

4) thrusts head forward.

5) thrusts arm forward.

6) employs a nonverbal movement with a verbal statement to give it emphasis (reinforces numerical aspects by showing that number of fingers).**

NOTE:

As in previous categories, positive instances of category seven may be comprised of single teacher gestures and movements, or of combinations of these nonverbal behaviors listed. For example, the teacher may simply point to an object such as a map or a model. On the other hand, the teacher may take a step toward an object or person and thrust his arm forward and toward the object (2, 5). Either of these instances would be considered and coded as examples of category seven.

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*Added to original category system for clarification of positive exemplars

**Removed from its original position in category five, altered in terms of added examples and inserted in category seven because the nature of the act tends to reinforce or stress rather than give directions

CATEGORY SEVEN CONTINUED

NEGATIVE EXAMPLES OF CATEGORY SEVEN:

the teacher:

1) extends arms forward and beckons with his hands.

2) gives directions to students.

3) turns away, ignoring a student or object.

4) paces back and forth.

5) establishes and maintains eye contact.

CATEGORY NUMBER EIGHT:

DEMONSTRATES AND/OR ILLUSTRATES

DEFINITION:

Teacher nonverbal movements serving to clarify, exemplify or explain.

POSITIVE EXAMPLES FOR CATEGORY EIGHT:

The teacher:

1) performs a physical skill.

2) manipulates materials and media (not for display purposes as "students' work" but rather for "how to" purposes).*

3) illustrates a verbal statement with a nonverbal action (reinforces a discussion of "probability" by flipping a coin ten times for heads or tails).**

NOTE:

The and/or rule has special implications for category eight as it applies not only to positive examples, but also to the category heading itself. It is important to realize that the terms "demonstrate and illustrate" imply defining or clarifying behavior and not attention getting behavior as in category seven. That is, often times the teacher may employ nonverbal behaviors such as manipulating appropriate science apparatus while discussing or verbalizing a scientific principle in an effort to explain the instruments use. In this instance the movements would be classified in category eight.

NEGATIVE EXAMPLES OF CATEGORY EIGHT:

The teacher:

1) holds up a student's paper.

2) points to a map on the wall.

3) states the correct steps in operating a film projector.

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*Added for clarification of existing system

**Added for clarification of existing system

CATEGORY NUMBER NINE:

PERSONAL MOTIONS*

DEFINITION:

Personal motions of the teacher will be defined as those moves that are idiosyncratic. These moves are not purposive. That is, they are seldom exhibited with the intention to communicate (habits, nervous twitches, extraneous movements).

POSITIVE EXAMPLES OF CATEGORY NINE:

The teacher:

1) scratches cheek.
2) rubs back of neck.
3) plays with clothing (preening behavior).**
4) puts hands in pockets (jingles change, keys).
5) paces.
6) plays with glasses.
7) folds hands or arms.
8) leans against rostrum or wall.

NEGATIVE EXAMPLES OF CATEGORY NINE:

Any planned-conscious signals, or gestures designed or utilized to direct, demonstrate, display or otherwise obtain a response from students will constitute a negative instance of category nine.

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*This category was adapted from Grant and Hennings, The Teacher Moves: An Analysis of Nonverbal Activity.

**Included for clarification of existing category